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Kang Soo Seo

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EXAMINER

HILLERY, NATHAN

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2176

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/730,929	Applicant(s) SEO ET AL.	
	Examiner NATHAN HILLERY	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-7 and 20-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,20-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/9/08, 7/9/08, 4/30/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communications: Amendment filed on 7/25/08.
2. Claims 1, 4 – 7, and 20 – 38 are pending in the case. Claims 1, 23, 27, 31, and 35 are independent.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 23 – 26 and 35 – 38 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
5. Claims 23 – 26 and 35 – 38 are considered software per se. Computer programs may be explicitly claimed as, for example, a series of code or instructions for performing functions or may be implicitly claimed as, for example, a system, a module or an apparatus, the latter being the case here in the form of an apparatus.
6. Thus a claim to functional descriptive material, including computer programs, per se, is not patent eligible subject matter. It should be noted that functional descriptive material claimed in combination with an appropriate computer storage medium to enable the functionality to be realized is patent eligible subject matter if it is capable of producing a useful, concrete and tangible result when used in the computer system.
7. Further, to expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to make them statutory..

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 5, 6, 20, 24, 25, 28, 29, 32, 33, 36 and 37 are rejected under 35 U.S.C.

112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

10. The limitation “the time resolution of the text data is lower than the resolution of the video presentation reference time” is merely recited in representative claim 5. The specification simply states:

a. The A/V presentation reference time (AV PRT) has a resolution of 90 KHz, which is obtained by dividing 27 MHz by 300, but on the other hand the text presentation reference time (TX PRT) may have a resolution of several milliseconds, which can be easily obtained by general microprocessors (paragraph block 0038).

11. Consequently, it will be assumed that if the video PRT has a resolution of 90 KHz and the text PRT is in milliseconds, then the text PRT is lower than the video PRT in light of applicant's specification.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1, 7, 21 – 23, 26, 27, 30, 31, 34, 35 and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikeda et al. (US 20060098936 A1).

14. **Regarding independent claim 1, 23, 27, 31, and 35**, Ikeda et al. teach that the time obtained by adding an offset to the time indicated by a PTS is substantially the same as the time indicated by a PTS attached to the video packet read from the BD-ROM. Accordingly, as a result of the processing performed by the audio decoder 6 described above, the playback outputs for the video frames read from the BD-ROM are in synchronization with the playback outputs for the audio frames read from the HD. The synchronization between the audio and the image is maintained due to the processing performed by the demultiplexer 14 and the audio decoder 6 described above (paragraph block 0170), which meet the limitation of **reading video data including reference clock from a recording medium, the reference clock including timing information for reproduction of the video data with system clock;**

Ikeda et al. teach that as a result of the processing performed by the image decoder described above, the playback output for the video frames read from the BD-

ROM is in synchronization with the playback output for the sub-image units read from the HD. Further, when the clock inside the playback apparatus reaches a time obtained by adding an offset to the display ending time in the header, the image decoder makes the subtitle disappear. As a result of the processing described here, the subtitles are displayed and made disappear in synchronization with the playback of the video (paragraph block 0202), which meet the limitation of **reading text data including presentation time stamp (PTS) for each unit from the recording medium and the text data not including the reference clock, the presentation time stamp defining start time and end time of the each unit;** and

Ikeda et al. teach that the AV stream (XXX.M2TS) is an MPEG-TS (transport stream) format digital stream obtained by multiplexing a video stream, one or more audio streams, and one or more sub-image streams. Video streams show the moving image portions of a movie, audio streams show the audio portions of a movie, and sub-image streams show the subtitles of a movie. FIG. 6 schematically shows how an AV stream is structured (paragraph block 0115), which meet the limitation of **displaying the text data synchronized with the video data, wherein the presentation time stamp of the text data is synchronized with the video data.**

15. **Regarding dependent claim 2,** Ikeda et al. teach that when the clock inside the playback apparatus reaches a time obtained by adding an offset to the display ending time in the header, the image decoder 9 makes the subtitle disappear. As a result of the processing described here, the subtitles are displayed and made disappear in

synchronization with the playback of the video (paragraph block 0202), which meet the limitation of **wherein the offset value is the difference between the initial presentation time stamp (PTS) of the video data stream and the initial presentation time stamp (PTS) of the text-based data.**

16. **Regarding dependent claim 3**, Ikeda et al. teach that the demultiplexing processing is performed by the demultiplexer 14 with reference to a time stamp, such as PCR (Program Clock Reference) or ATS (Arrival Time Stamp), that is attached to each TS packet and the offsets included in the stream management information (paragraph block 0169), which meet the limitation of **wherein the text-based data does not include program clock reference (PCR) information.**

17. **Regarding dependent claim 7**, Ikeda et al. teach that it becomes possible to freely switch subtitles, for example, from the subtitle on the BD-ROM to the subtitle on HD, or from the subtitle on the HD to the subtitle on the BD-ROM (paragraph block 0205), which meet the limitation of **wherein the text data is recorded on the recording medium or provided by an external source through a network.**

18. **Regarding dependent claim 21, 26, 30, 34, and 38**, Ikeda et al. teach that FIG. 29 shows what kind of subtitle display is achieved as a result of the output switching shown in FIG. 28. The playback may be performed so that an English subtitle "Run after you" is combined with the moving pictures; on the other hand, the playback may be

performed so that the Japanese subtitle is combined with the moving pictures (paragraph block 0213), which meet the limitation of **wherein the text data and the video data are displayed mixed with text data.**

19. **Regarding dependent claim 22**, Ikeda et al. teach that the demultiplexing processing is performed by the demultiplexer 14 with reference to a time stamp, such as PCR (Program Clock Reference) or ATS (Arrival Time Stamp), that is attached to each TS packet and the offsets included in the stream management information (paragraph block 0169), which meet the limitation of **wherein the reference clock is Program Clock Reference (PCR).**

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claim 4 – 6, 20, 24, 25, 28, 29, 32, 33, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (US 20060098936 A1), as applied to claim 1 above and further in view of Jung et al. (US 20040081434 A1).

22. **Regarding dependent claim 4**, Ikeda et al. do not explicitly teach **wherein the text data is subtitle data written in a mark-up language.**

Jung et al. teach that referring to FIG. 11, a markup language is used as text data for subtitles (paragraph block 0116), which meet the limitation of **wherein the text data is subtitle data written in a mark-up language.**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Ikeda et al. with that of Jung et al. because such a combination would provide the users of an information storage medium on which sub picture data is recorded with a data structure in which when video data are coded, the amount of bits to be generated for sub picture data need not be considered in advance and an apparatus therefor (paragraph block 0031).

23. **Regarding dependent claim 5, 24, 28, 32, and 36,** Ikeda et al. do not explicitly teach **wherein the time resolution of the text data is lower than the resolution of the video presentation reference time.**

Jung et al. teach that the time can be expressed in units of (1/1000) second. Also, if video data is MPEG video, the time may have a presentation time stamp (PTS) value of video images on which the subtitle overlays and is displayed. Generally, the PTS value is a count value operating at 27 MHz or 90 kHz (paragraph block 0117), which meet the limitation of **wherein the time resolution of the text data is lower than the resolution of the video presentation reference time.**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Ikeda et al. with that of Jung et al. because such a combination would provide the users of an information storage medium on which sub

picture data is recorded with a data structure in which when video data are coded, the amount of bits to be generated for sub picture data need not be considered in advance and an apparatus therefor (paragraph block 0031).

24. **Regarding dependent claim 6**, Ikeda et al. do not explicitly teach **wherein the resolution of the text presentation reference time is of the order of several milliseconds**.

Jung et al. teach that the time can be expressed in units of 1/1000 second (paragraph block 0117), which meet the limitation of **wherein the resolution of the text presentation reference time is of the order of several milliseconds**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Ikeda et al. with that of Jung et al. because such a combination would provide the users of an information storage medium on which sub picture data is recorded with a data structure in which when video data are coded, the amount of bits to be generated for sub picture data need not be considered in advance and an apparatus therefor (paragraph block 0031).

25. **Regarding dependent claims 20, 25, 29, 33, and 37**, Ikeda et al. do not explicitly teach **wherein the time resolution of the text data is 90 kHz**.

Jung et al. teach that if video data is MPEG video, the time may have a presentation time stamp (PTS) value of video images on which the subtitle overlays and is displayed. Generally, the PTS value is a count value operating at 27 MHz or 90 kHz

(paragraph block 0117), which meet the limitation of **wherein the time resolution of the text data is 90 kHz.**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Ikeda et al. with that of Jung et al. because such a combination would provide the users of an information storage medium on which sub picture data is recorded with a data structure in which when video data are coded, the amount of bits to be generated for sub picture data need not be considered in advance and an apparatus therefor (paragraph block 0031).

Response to Arguments

26. Applicant's arguments filed 7/25/08 have been fully considered but they are not persuasive.

Applicant essentially argues that Ikeda et al. is not prior art in light of the perfection of foreign priority, which under 35 USC 102(e) gives the instant application a priority date of 12 Dec 2002. The applicant seems confused and believes the Office must rely on the International filing date of the PCT for the Ikeda et al. reference. Applicant conveniently leaves out the domestic priority claimed by Ikeda et al. in the form of a US provisional application; thus giving the Ikeda et al. reference a priority date of 25 Sep 2002 that may be used under 35 USC 102(e).

Conclusion

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN HILLERY whose telephone number is (571)272-4091. The examiner can normally be reached on M - F, 10:30 a.m. - 7:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W Doug Hutton can be reached on (571) 272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NH

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